

WHAT IS CLAIMED IS:

1. A component comprising:

5 one or more integrated circuits; and

 a component package to which the one or more integrated circuits are coupled, the
 component package having a bottom comprising a plurality of conductors
 for providing signal connection to the one or more integrated circuits, a
10 top to which the one or more integrated circuits are coupled, and a
 plurality of sides, wherein at least one of the plurality of sides includes at
 least one power pad for providing a power supply voltage to the one or
 more integrated circuits and wherein at least one of the plurality of sides
 includes at least one ground pad for providing a ground to the one or more
15 integrated circuits.

2. The component as recited in claim 1 wherein the component package comprises one or
more power planes and one or more ground planes, wherein each of the power planes is
coupled to the power pad and each of the ground planes is coupled to the ground pad.

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3. The component as recited in claim 1, wherein each of the power planes is insulated
from the ground pad, and wherein each of the ground planes is insulated from the power
pad.

25 4. The component as recited in claim 2 wherein the component package comprises a
circuit board, and wherein the power planes and the ground planes comprise layers in the
circuit board.

5. The component as recited in claim 1 wherein each of the plurality of sides includes at

least one pad.

6. The component as recited in claim 5 wherein each of the plurality of sides includes at least one power pad and at least one ground pad.

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7. An apparatus comprising:

10 a component comprising one or more integrated circuits and a component package to which the one or more integrated circuits are coupled, the component package having a bottom comprising a plurality of conductors for providing signal connection to the one or more integrated circuits, a top to which the one or more integrated circuits are coupled, and a plurality of sides, wherein at least one of the plurality of sides includes at least one power pad for providing a power supply voltage to the one or more
15 integrated circuits and wherein at least one of the plurality of sides includes at least one ground pad for providing a ground to the one or more integrated circuits; and

20 a circuit board configured to be placed over a top of the component, the circuit board including a bottom side that faces the component during use, the bottom side of the second circuit board comprising a first plurality of conductive pads to be electrically coupled to the power and ground pads on the component to supply power and ground connection to the component.

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8. The apparatus as recited in claim 7 wherein the circuit board includes a portion that extends beyond a first edge of the component.

9. The apparatus as recited in claim 7 further comprising a power supply module

arranged to a side of the component, the first edge being nearest the power supply module.

10. The apparatus as recited in claim 9 further comprising a second circuit board coupled
5 to the plurality of conductors, the second circuit board including conductors for signal communication with the component.

11. The apparatus as recited in claim 10 wherein the power supply module is coupled to
the second circuit board, the second circuit board supplying power to the power supply
10 module during use.

12. The apparatus as recited in claim 11 wherein the power supply module is further
coupled to receive one or more signals generated by the component indicating the
magnitude of the power supply voltage to be supplied to the component, wherein the one
15 or more signals communicated from the component through the second circuit board to the power supply module.

13. The apparatus as recited in claim 12 wherein the power supply module is coupled to
receive one or more remote voltage sense signals conveying the power supply voltage
20 received by the component as feedback to generate the power supply voltage, wherein the remote voltage sense signals are communicated through the second circuit board.